

003263.P004

Patent

Response Under 37 C.F.R. § 1.116 Expedited Procedure  
Examination Group 2858

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

Bridges et al. ✓

Serial No. 09/610,668 ✓

Filed: July 5, 2000 ✓

For: METHOD AND APPARATUS FOR SUB-  
MICRON IMAGING AND PROBING ON  
PROBE STATION ✓

Examiner: James Kerveros ✓

Art Unit: 2858 ✓

RESPONSE TO FINAL OFFICE ACTION UNDER 37 CFR § 1.116

Box AF  
Assistant Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

In response to the Final Office Action mailed October 18, 2001, Applicants respectfully request the Examiner to consider the following remarks.

REMARKS

Claims pending in the instant application are numbered 1-33. Claims 1-33 presently stand rejected. The Applicants respectfully request reconsideration of the present application pursuant to 37 CFR § 1.116 in light of the following remarks.

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Serial No. 09/610,668

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Examiner: James Kerveros  
Art Unit: 2858

True Grant Response 1/22/02  
RESTART TIME PERIOD

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1/22/02

*35 U.S.C. § 103 Rejections*

In the October 18, 2001 Final Action, claims 1, 2, 4, 6-9, 15-18, 23-27, 30 and 33, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lindsay et al., US Patent Number 5,983,712, in view of Applicants' admitted prior art.

Present claim 1 of the Applicants' invention expressly recites a cantilever, having a tip, which is attached to a second positioning unit, which is attached to a probe arm, which is attached to a first positioning unit. A motion sensor is configured to detect motion of the cantilever. Present claim 1 expressly recites that the claimed first positioning unit is mounted onto a probe station platform of a probe station *so as to provide additional probing capability* to the probe station. The presently claimed probe apparatus is therefore added to a probe station that already has some probing capabilities even without the Applicants' claimed probe apparatus.

The Applicants respectfully submit that the Examiner has not made out a prima facie case of obviousness by failing to show that all the expressly recited claim limitations are taught or suggested by the prior art. MPEP § 2143.03. Lindsay simply discloses a traditional atomic force microscope including a positioning unit held in a fixed position. Lindsay, however, fails to disclose, teach, or fairly suggest a first positioning unit mounted onto a probe station platform of a probe station *so as to provide additional probing capability* to the probe station, as expressly recited in the Applicants' present claims. As summarized on page 7, lines 10-20, of the Applicants' specification, the presently claimed invention provides a way to preserve a user's investment in a traditional probe station. The present invention can be quickly and easily added to a traditional probe station to provide additional probing capability to improve, for example, imaging and probe placement to the sub-micron and "deep sub-micron" level and to allow low-loading electrical measurements.

Independent claims 23 and 30 distinguish over Lindsay for the same reasons as claim 1. Present claim 23 expressly recites "mounting a probe apparatus to a probe station platform of a probe station *so as to provide additional probing capability* to the probe station." Present claim 30 expressly recites "first positioning means for coarse positioning mounted to a probe station platform of a probe station *so as to provide additional probing capability* to the probe station." Dependent claims 2, 4, 6-9, 15-18, 24-27 and 33 are dependent claims and distinguish for at least the same reasons as their respective independent base claims in addition to adding further limitations of their own.

Furthermore, claims 3, 5, 10-14, 19-22, 28, 29, 31 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lindsay et al. as applied to claims 1, 23 and 30 above, in further view of Hellemans et al., US Patent Number 6,091,248.

Hellemans is directed to a method for measuring the electrical potential in a semiconductor element. Hellemans describes an electrometer 10, which measures the electrical potential through probe 3 of the semiconductor device 1. Hellemans discloses in column 4, lines 45-50, that the semiconductor element 1 is mounted movable three-dimensionally with a piezo-crystal 2. Thus, the force or distance of probe 3 relative to the semiconductor element 1 is adjusted or calibrated by moving the semiconductor element 1 with piezo-crystal 2.

As stated above, the Applicants respectfully submit that the Examiner has not made out a prima facie case of obviousness by failing to show all the claim limitations are taught or suggested by the prior art. Hellemans fails to disclose, teach or fairly suggest that a first positioning unit is mounted onto a probe station platform of a probe station *so as to provide additional probing capability* to the probe station, as expressly recited in the presently claimed invention. The Applicants further note that claims 3, 5, 10-14, 19-22, 28, 29, 31 and 32 are

dependent claims, which distinguish for at least the same reasons as their respective independent base claims in addition to adding further limitations of their own.

Accordingly, both Lindsay and Hellemans, whether taken singularly or in combination, fail to disclose, teach or fairly suggest at least one or more expressly recited elements of the presently claimed invention. Therefore, the Applicants respectfully request that the instant section 103 rejections be withdrawn and that the presently claimed invention is in condition for allowance.

The Applicants respectfully request that a timely Notice of Allowance be issued in this case.

*Charge Deposit Account*

Please charge our Deposit Account No. 02-2666 for any additional fee due in this matter.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 12-12-01

  
James Y. Go, Reg. No. 40,621

Customer No. \_\_\_\_\_  
12400 Wilshire Boulevard,  
Seventh Floor  
Los Angeles, California 90025  
(206) 292-8600

**FIRST CLASS CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))**

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12-12-01  
Date

003263.P004  
Serial No. 09/610,668

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Examiner: James Kerveros  
Art Unit: 2858

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Two Union Square  
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Seattle, WA 98101-1365

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Fax: (206) 292-8606

## FACSIMILE TRANSMITTAL SHEET

Deliver to: Examiner James C. Kerveros  
Firm Name: US Patent and Trademark Office  
Fax Number: (703) 746-4461 Telephone No.: (703) 308-7722  
From: James Y. Go  
Date: January 18, 2002 Time: \_\_\_\_\_  
Operator: Rimma N. Oks Serial No.: 09/610,668  
Title: METHOD AND APPARATUS FOR PROVIDING A START-UP  
CONTROL VOLTAGE  
Number of pages including cover sheet: 10

## Message:

Dear Examiner Kerveros,

As we discussed during our phone conversation earlier today, attached please find the Response to the Final Office Action that was timely mailed to you previously on December 12, 2001 via First Class US Mail in response to the Final Action mailed by the PTO on October 18, 2001.

Please contact me at (206) 292-8600 after your review.

Respectfully Submitted,

  
James Y. Go

Reg. No.: 40,621

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Serial/Patent No.: 09/610,668 Filing/Issue Date: July 5, 2000  
 Client: MPI Technologies Corporation  
 Title: METHOD AND APPARATUS FOR PROVIDING A START-UP  
CONTROL VOLTAGE  
 BSTZ File No.: 003263.P004 Atty./Sentry Initials: JYG/rno  
 Date Mailed: December 12, 2001 Docket Due Date: December 18, 2001

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Amendment/Response ( <u>4</u> pgs.)             | <input type="checkbox"/> Express Mail No.: _____                                     | <input type="checkbox"/> Check No. _____ |
| <input type="checkbox"/> Appeal Brief (____ pgs.) (in triplicate)                   | <input type="checkbox"/> _____ Month(s) Extension of Time                            | Amt: _____                               |
| <input type="checkbox"/> Application - Utility (____ pgs., with cover and abstract) | <input type="checkbox"/> Information Disclosure                                      |  |
| <input type="checkbox"/> Application - Rule 1.53(b) Continuation (____ pgs.)        | Statement & FTO-1449 (____ pgs.)   | <input type="checkbox"/> Check No. _____ |
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| <input type="checkbox"/> Application - Rule 1.53(b) CIP (____ pgs.)                 | <input type="checkbox"/> Notice of Appeal  |  |
| <input type="checkbox"/> Application - Rule 1.53(d) CPA Transmittal (____ pgs.)     | <input type="checkbox"/> Petition for Extension of Time                              |  |
| <input type="checkbox"/> Application - Design (____ pgs.)                           | <input type="checkbox"/> Petition for _____  |  |
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| <input type="checkbox"/> Disclosure Docs & Orig &                                   | <input type="checkbox"/> Small Entity Declaration for Indep. Inventor/Small Business |  |
| Copy of Inventor's Signed Letter (____ pgs.)  | <input checked="" type="checkbox"/> Transmittal Letter, in duplicate                 |  |
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Attorney's Docket No.: 003263.P004

Patent

In re the Application of: Bridges

(inventor(s))

AMENDMENT UNDER  
37 C.F.R. § 1.116  
EXPEDITED PROCEDURE

Application No.: 09/610,668

EXAMINING GROUP 2858

Filed: July 5, 2000

For: METHOD AND APPARATUS FOR PROVIDING A START-UP CONTROL VOLTAGE

(title)

ASSISTANT COMMISSIONER FOR PATENTS

Washington, D.C. 20231

Box AF

SIR: Transmitted herewith is an **Amendment After Final Action** for the above application.

Small entity status of this application under 37 C.F.R. §§ 1.9 and 1.27 has been established by a verified statement previously submitted.

A verified statement to establish small entity status under 37 C.F.R. §§ 1.9 and 1.27 is enclosed.

☒ No additional fee is required.☐ A Notice of Appeal is enclosed.

The fee has been calculated as shown below:

(Col. 1)		(Col. 2)		(Col. 3)	SMALL ENTITY		OTHER THAN A SMALL ENTITY	
	Claims Remaining After Amd.		Highest No. Previously Paid For	Present Extra	Rate	Additional Fee	Rate	Additional Fee
Total Claims	*33	Minus	**33	0	X9	\$	X18	\$0.00
Indep. Claims	*3	Minus	***3	0	X39	\$	X78	\$0.00
First Presentation of Multiple Dependent Claim(s)					+130	\$	+260	\$
					Total Add. Fee	\$	Total Add. Fee	\$0.00

\* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.

\*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.

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on December 12, 2001

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Name of Person Mailing Correspondence

Signature

Date

12-12-01



\_\_\_\_\_ A check in the amount of \$ \_\_\_\_\_ is attached for presentation of additional claim(s).  
\_\_\_\_\_ Applicant(s) hereby Petition(s) for an Extension of Time of \_\_\_\_\_ month(s) pursuant to  
\_\_\_\_\_ 37 C.F.R. § 1.136(a).

\_\_\_\_\_ A check for \$ \_\_\_\_\_ is attached for processing fees under 37 C.F.R. § 1.17.

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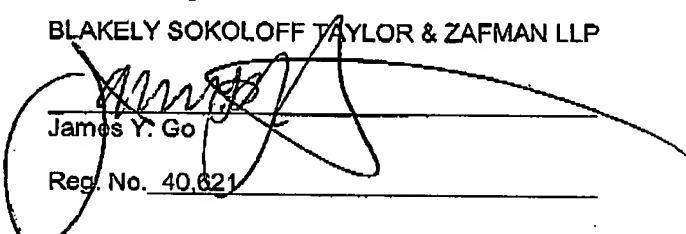
X \_\_\_\_\_ Any additional filing fees required under 37 C.F.R. § 1.16 for presentation of  
\_\_\_\_\_ extra claims.

X \_\_\_\_\_ Any extension or petition fees under 37 C.F.R. § 1.17.

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

Date: 12-12-01

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025  
(206) 292-8600

  
James Y. Go

Reg. No. 40,621